FORM PTO-1390 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE (REV 11-2000)	ATTORNEY'S DOCKET NUMBER
TRANSMITTAL LETTER TO THE UNITED STATES	PF990065

<table>
<tr><td colspan="2" align="center">DESIGNATED/ELECTED OFFICE (DO/EO/US)</td><td>U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR</td></tr>
<tr><td colspan="2" align="center">CONCERNING A FILING UNDER 35 U.S.C. 371</td><td align="center">10/089539</td></tr>
<tr><td>INTERNATIONAL APPLICATION NO.
PCT/FR00/02694</td><td>INTERNATIONAL FILING DATE
28 SEPTEMBER 2000 (28.09.00)</td><td>PRIORITY DATE CLAIMED
28 SEPTEMBER 1999 (28.09.99)</td></tr>
</table>

TITLE OF INVENTION

PROCESS FOR ASSOCIATING AN APPARATUS TO A COMMUNICATION NETWORK

APPLICANT(S) FOR DO/EO/US

Patrick Lopez

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.

2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.

3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include itens (5), (6), (9) and (24) indicated below.

4. ☐ The US has been elected by the expiration of 19 months from the priority date (Article 31).

5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
    a. ☐ is attached hereto (required only if not communicated by the International Bureau).
    b. ☒ has been communicated by the International Bureau.
    c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).

6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
    a. ☒ is attached hereto.
    b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).

7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
    a. ☐ are attached hereto (required only if not communicated by the International Bureau).
    b. ☐ have been communicated by the International Bureau.
    c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
    d. ☒ have not been made and will not be made.

8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).

9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).

10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. (c)(5)).

11. ☒ A copy of the International Preliminary Examination Report (PCT/IPEA/409).

12. ☒ A copy of the International Search Report (PCT/ISA/210).

Items 13 to 20 below concern document(s) or information included:

13. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.

14. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.

15. ☒ A **FIRST** preliminary amendment.

16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.

17. ☐ A substitute specification.

18. ☒ A change of power of attorney and/or address letter.

19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.

20. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).

21. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).

22. ☒ Certificate of Mailing by Express Mail

23. ☒ Other items or information:

    Return Postcard Receipt

    EXPRESS MAIL NO: EL 722193655 US   DATE OF DEPOSIT: MARCH 28, 2002

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR	INTERNATIONAL APPLICATION NO.	ATTORNEY'S DOCKET NUMBER
10/089539	PCT/FR00/02694	PF990065
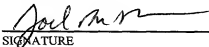
24.   The following fees are submitted:.

BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) :

CALCULATIONS PTO USE ONLY

☐ Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USTPO and International Search Report not prepared by the EPO or JPO	$1040.00	
☒ International preliminary examination fee (37 CFR 1.482) not paid to USTPO but International Search Report prepared by the EPO or JPO	$890.00	
☐ International preliminary examination fee (37 CFR 1.482) not paid to USTPO but international search fee (37 CFR 1.445(a)(2)) paid to USTPO	$740.00	
☐ International preliminary examination fee (37 CFR 1.482) paid to USTPO but all claims did not satisfy provisions of PCT Article 33(1)-(4)	$710.00	
☐ International preliminary examination fee (37 CFR 1.482) paid to USTPO and all claims satisfied provisions of PCT Article 33(1)-(4)	$100.00	

ENTER APPROPRIATE BASIC FEE AMOUNT =	$890.00
Surcharge of **$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (e)).	$0.00

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	
Total claims	9 - 20 =	0	x $18.00	$0.00
Independent claims	1 - 3 =	0	x $84.00	$0.00
Multiple Dependent Claims (check if applicable).		☐		$0.00

TOTAL OF ABOVE CALCULATIONS =	$890.00
☐ Applicant claims small entity status. See 37 CFR 1.27). The fees indicated above are reduced by 1/2.	$0.00
SUBTOTAL =	$890.00
Processing fee of **$130.00** for furnishing the English translation later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.492 (f)). +	$0.00
TOTAL NATIONAL FEE =	$890.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable). ☒	$40.00
TOTAL FEES ENCLOSED =	$930.00

Amount to be: refunded	$
charged	$

a.   ☐   A check in the amount of _____ to cover the above fees is enclosed.

b.   ☒   Please charge my Deposit Account No.   **07-0832**   in the amount of   **$930.00**   to cover the fees. A duplicate copy of this sheet is enclosed.

c.   ☒   The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No.   **07-0832**   A duplicate copy of this sheet is enclosed.

d.   ☐   Fees are to be charged to a credit card. WARNING: Information on this form may become public. **Credit card information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

Mr. Joseph S. Tripoli
THOMSON multimedia Licensing Inc.
Patent Department
P. O. Box 5312
Princeton, New Jerey 08540

SIGNATURE

JOEL M. FOGELSON

NAME

43,613

REGISTRATION NUMBER

March. 28, 2002

DATE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant   :   Patrick Lopez

Filed   :   September 28, 2000 - PCT National Phase of PCT/FR00/02694

For   :   PROCESS FOR ASSOCIATING AN APPARATUS TO A
                  COMMUNICATION NETWORK

PRELIMINARY AMENDMENT

Hon. Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Sir:

          In the US national phase application of PCT/FR00/02694
please enter the following amendments.

IN THE SPECIFICATION:

     Please amend the specification as follows:

Page 1,   after the title, insert the following:
             --This application claims the benefit under 35 U.S.C. § 365 of
International Application PCT/FR00/02694, filed September 28, 2000, which
claims the benefit of French Application No. 9912051, filed September 28,
1999.--

Page 1,   Line 10, after "...existing network." insert -- Background of
the Invention --.

Page 1,   Line 33, after "...remedy this problem." insert -- Summary
of the Invention --.

Page 2,   Line 22, after "...channel for the first network." insert
- Brief Description of the Drawing --.

Page 2,   Line 30, after "figure 2 is a flowchart of the process according to the present exemplary embodiment." insert – Detailed Description of the Invention --.

IN THE CLAIMS:

Please amend the claims as follows. This is the clean version. Attached is the marked up version of these claims.

1. (Amended) A process for associating an apparatus to a first communication network, the transmissions in the first network being performed on a first channel, wherein said process comprises the steps of :
- detection by said apparatus of the first transmission channel ;
- determination of collision on said channel between signals originating from the first network and from a second network ;
- in case of collision, transmission of a change of channel request to the first network.

2. (Amended) The process as claimed in claim 1, wherein it furthermore comprises the step of associating the apparatus with a base station of the first network, following non-detection of collision.

3. (Amended) The process as claimed in claim 1, wherein it furthermore comprises a repeating of the steps of claim 1 until the first network locks onto a channel for which no collision is detected.

4. (Amended) The process as claimed in claim 1, wherein the change of channel request comprises an identifier of the first network.

5. (Amended) The process as claimed in claim 1, wherein the change of channel request comprises an identifier of the apparatus.

6. (Amended) The process as claimed in claim 1, wherein the request comprises a parameter indicating a transmission channel suggested to the first network.

7. (Amended) The process as claimed in claim 1, wherein the request comprises a parameter indicating the number of times that this request has already been sent to the first network.

8. (Amended) The process as claimed in claim 1, wherein before association the apparatus knows the identity of the central controller of the first network and in that the frames transmitted on this first network comprise a field identifying this central controller.

9. (Amended) The process as claimed in claim 8, wherein the determination of collision is carried out by detecting the fact that the apparatus cannot decode at least certain frames or parts of frames transmitted on the first network.

IN THE ABSTRACT:

Please add the attached Abstract.

REMARKS

The specification has been amended to include a reference to the priority application and to meet the requirements of the USPTO.

The above amendments to the claims have been made to eliminate reference indicia and to meet the requirements of the USPTO.

To meet the requirements of the United States, the Abstract has been added.

No fee is believed to have been incurred by virtue of this amendment. However, if a fee is incurred on the basis of this amendment, please charge such fee against deposit account 07-0832.

Respectfully submitted,
Patrick Lopez

Joel M. Fogelson
Registration No. 43,613
609/734-9534

Enclosures

THOMSON multimedia Licensing Inc.
Patent Operation
PO Box 5312
Princeton, NJ 08543-5312

Date: March 28, 2002

Marked Up Claims

1. (Amended) A process for associating an apparatus [(MT5)] to a first communication network (N1), the transmissions in the first network being performed on a first channel, [characterized in that] <u>wherein</u> said process comprises the steps of :

- detection by said apparatus [(MT5)] of the first transmission channel ;

- determination of collision on said channel between signals originating from the first network [(N1)] and from a second network [(N2)] ;

- in case of collision, transmission of a change of channel request to the first network.

2. (Amended) The process as claimed in claim 1, [characterized in that] <u>wherein</u> it furthermore comprises the step of associating the apparatus with a base station of the first network, following non-detection of collision.

3. (Amended) The process as claimed in [one of claims 1 or 2, characterized in that] <u>claim 1, wherein</u> it furthermore comprises a repeating of the steps of claim 1 until the first network locks onto a channel for which no collision is detected.

4. (Amended) The process as claimed in [one of claims 1 to 3, characterized in that] <u>claim 1, wherein</u> the change of channel request comprises an identifier of the first network.

5. (Amended) The process as claimed in [one of claims 1 to 4, characterized in that] <u>claim 1, wherein</u> the change of channel request comprises an identifier of the apparatus.

6. (Amended) The process as claimed in [one of claims 1 to 5, characterized in that] <u>claim 1, wherein</u> the request comprises a parameter indicating a transmission channel suggested to the first network.

7. (Amended) The process as claimed in [one of claims 1 to 6, characterized in that] <u>claim 1, wherein</u> the request comprises a parameter indicating the number of times that this request has already been sent to the first network.

8. (Amended) The process as claimed in [one of claims 1 to 7, characterized in that] <u>claim 1, wherein</u> before association the apparatus knows the identity of the

central controller of the first network and in that the frames transmitted on this first network comprise a field identifying this central controller.

9. (Amended) The process as claimed in claim 8, [characterized in that] wherein the determination of collision is carried out by detecting the fact that the apparatus cannot decode at least certain frames or parts of frames transmitted on the first network.

Abstract

The subject of the invention is a process for associating an apparatus to a first communication network, the transmissions in the first network being performed on a first channel. The process comprises :

- detection by said apparatus of the first transmission channel ;

- determination of collision on said channel between signals originating from the first network and from a second network ;

- in case of collision, transmission of a change of channel request to the first network.

The invention applies in particular within the framework of local networks such as HIPERLAN 2.

Process for associating an apparatus to a communication network

The invention relates to a process for associating an apparatus to a communication network, in particular a local network, capable of sharing the same transmission frequency resource as another neighboring network. The invention applies in particular within the framework of broadband radio access networks (BRAN), when an apparatus is to be associated with an existing network.

Local networks using sharing of the radio resource in FDMA mode are required to use one channel from among a finite set of channels, which is given and granted by the standardizing bodies.

In order to avoid mutual disturbance, it is often advisable to implement techniques for probing the various channels. It is entirely possible to limit oneself to listening to a subset of channels or to explore all the channels. At the end of this listening phase, the equipment wishing to create a network will choose a channel which it deems to be free of any radio activity. We will then speak of a dynamic frequency selection (DFS) mechanism.

In an environment made up of multiple local networks, it is possible that two networks, though geographically close, may have chosen the same frequency, without however interfering with one another. This is all the more probable the lower the number of channels dedicated to this service.

However, it may happen that an apparatus which has to associate itself with a network may also be able to communicate with a base station of another network. The problem then arises of the collision of the frames originating from the two networks at the level of this apparatus.

The aim of the invention is to remedy this problem.

The subject of the invention is a process for associating an apparatus to a first communication network, the transmissions in the first network being

performed on a first channel, characterized in that said process comprises the steps of :

(a) detection by said apparatus of the first transmission channel ;

(b) determination of collision on said channel between signals originating from the first network and from a second network;

(c) in case of collision, transmission of a change of channel request to the first network.

According to a particular embodiment, the process furthermore comprises the step of associating the apparatus with a base station of the first network, following non-detection of collision.

According to a particular embodiment, the process furthermore comprises a repeating of the steps of the claim (a) to (c) until the first network locks onto a channel for which no collision is detected.

According to a particular embodiment, the change of channel request comprises at least one of the following parameters : an identifier of the first network, an identifier of the apparatus, the number of times that the request has been sent, a suggestion of transmission channel for the first network.

Other characteristics and advantages of the invention will become apparent through the description of a particular exemplary embodiment, described with the aid of the appended drawings and among which :

- figure 1 diagrammatically represents two local networks implementing the process according to the present exemplary embodiment :

- figure 2 is a flowchart of the process according to the present exemplary embodiment.

The present example lies within the framework of local networks of the HIPERLAN 2 TYPE (« High Performance Radio Local Network Type 2 »). This type of network is currently undergoing specification at the European Telecommunication Standards Institute (ETSI). Fuller details regarding this network can be found in particular in the following documents, published by the ETSI :

(a) ETR0230002 V 0.1.2 (April 1999) Broadband Radio Access Networks (BRAN); High Performance Radio Local Area Networks (HIPERLAN) Type 2; System overview

(b) DTS/BRAN030003-1 V 0.h (August 1999) Broadband Radio Access Networks (BRAN); HIPERLAN Type 2 Functional Specification Data Link Control (DLC) layer Part 1 – Basic Data Transport Function

(c) DTS/BRAN-00240004-2 V 0.a (August 1999) Broadband Radio Access Networks (BRAN) Packet based Convergence Layer for HIPERLAN and HIPERACCESS; Part 2: Ethernet Service Specific Convergence Sublayer

(d) DTS/BRAN-0020004-2 V 0.a (July 1999) Broadband Radio Access Networks (BRAN); HIPERLAN Type 2 Functional Specification; Radio Link Control (RLC) sublayer

(e) DTS/BRAN030003-1 V 0.j (September 1999) Broadband Radio Access Networks (BRAN); HIPERLAN Type 2 Functional Specification Part 1 – Physical (PHY) layer

Other ETSI documents relating to HIPERLAN 2 are referenced in document (a).

Figure 1 is a diagram of two dwellings each possessing a local network, N1 and N2 respectively. Of course, the invention is not limited to this particular case, and two networks may perfectly well be situated in one and the same building. Each network comprises a central device or base station AP1, AP2. These base stations are the respective central facilities of each of the networks N1 and N2. In function terms, they comprise the functionality of « central controllers » of the HIPERLAN 2 environment.

Each network furthermore comprises mobile terminals MTx, communicating with the access point associated with the network. In this regard, the network N1 comprises the terminals MT1 and MT2, while the network N2 comprises the terminals MT3 and MT4.

When a new mobile terminal MT5 is to be integrated into an existing network, this terminal traverses the frequency channels on which the networks may transmit until a signal of sufficient power and intelligibility is detected. The intelligibility is related to the error rate detected by the terminal in the data received.

In what follows it will be assumed that initially the two terminal N1 and N2 use the same transmission channel. Moreover, for the sake of the example, it is assumed that the terminal MT5 can communicate both with the base station of the network N1 and with the base station of the network N2.

In the case where the traffic on each of the two networks N1 or N2 does not occupy the whole of the time frame, the new terminal has the possibility of intelligibly receiving the information from at least one of the networks. According to the present example, this is the network N1. Generally, the first few items of information thus collected relate to the identity of the network N1 and to the access entitlements. This information allows the terminal to determine whether it has the access entitlements with regard to this network N1.

According to the present example, the terminal MT5 has prior knowledge of the identifier of the network with which it is assumed to associate itself. It thus recognizes the frame corresponding to this network. This identifier may be the « Network_Operator_ID » identifier.

In the case where the terminal is entitled to access this network N1, it initiates a procedure called association, and via which the terminal registers itself in the network N1 and obtains an identity in return. The protocols generally implemented in respect of this operation require dialogs between on the one hand the terminal and on the other hand the network already formed. For example, it is often necessary to carry out the authentication of the terminal before granting it an identity in the network.

In the present case, the communications between the terminal and the network N1 are subjected to the disturbances emanating from the network N2. Thus, there is nothing to guarantee that the association procedure will be performed correctly, since it is strongly dependent on the activity on the concurrent network N2. The response of the network N1 to the association request of the terminal can collide at the level of the terminal with a portion of traffic of the network N2. This is detected by the terminal MT5 by the fact that certain frames or parts of frames are not decodable. The terminal MT5 will declare that it is in a situation of interference when it is not able correctly to receive these association messages originating from the network N1. Thus, the interfering signal, for example a frame of another network, need not be

intelligible in respect of the apparatus seeking to detect the interference. The terminal simply has to know the address of the access point of the network with which it wishes to associate itself.

Thus, instead of initiating a conventional association procedure, the terminal sends the network N1 a so-called emergency request, consisting in asking the network N1 to initiate a dynamic frequency selection, to the exclusion of the current frequency. This request also contains the identity of the network N1, so as to prevent the two networks N1 and N2 from changing frequency simultaneously : the networks detect the identity and react only if it is addressed to them.

The emergency request is transmitted in the RCH field of the HIPERLAN 2 frame of the network N1.

According to the present example, the emergency request comprises the following parameters :

Parameter	Description
AP_ID or CC_ID	Identifies the base station (AP : access point, CC : Central controller) Content of the BCCH field of the frame received from the network N1
NET_ID	Content of the BCCH field of the frame received from the network N1
'Number_of_Request'	Indicates the number of times that the message has been sent
'Frequency_index'	Index of the frequency/of the suggested channel

Table 1

The third parameter can influence the decision of the base station AP1 to accept or reject the request of the terminal, in the event of poor operation of the mobile terminal. This field is optional.

The BCCH field is a field of the frame defined by the documents relating to HIPERLAN 2.

According to a variant embodiment, the emergency request furthermore comprises a channel suggestion on the part of the terminal. This suggestion can be determined as follows : the terminal monitors the activity on various channels, for example for a predetermined time, and thus determines which channels are liable to be unoccupied.

This technique guarantees that the terminal is correctly understood by the network N1, since the terminal has transmitted its request in the scheduled area of the frame of the network N1. The network A has recognized its identity in this request and initiates a DFS. At the end of the DFS, the network N1 will have changed frequency and so the terminal will initiate a normal association procedure with regard to this new frequency, on condition of course that there has been no collision with a third network.

The emergency request of the terminal will be received by members of the network N2 either intelligibly, or in collision with a portion of the traffic of this network.

In the case of a collision, the latter is resolved by the repetition mechanism or by the error correcting coding used by the network N2. This request being short, it only very locally disturbs the activity of the network N2.

In the case of intelligible decoding of the request, the members of the network N2 understand that the DFS request relates to the network N1, and thus no DFS is implemented.

Claims

1. A process for associating an apparatus (MT5) to a first communication network (N1), the transmissions in the first network being performed on a first channel, characterized in that said process comprises the steps of :

- detection by said apparatus (MT5) of the first transmission channel ;
- determination of collision on said channel between signals originating from the first network (N1) and from a second network (N2) ;
- in case of collision, transmission of a change of channel request to the first network.

2. The process as claimed in claim 1, characterized in that it furthermore comprises the step of associating the apparatus with a base station of the first network, following non-detection of collision.

3. The process as claimed in one of claims 1 or 2, characterized in that it furthermore comprises a repeating of the steps of claim 1 until the first network locks onto a channel for which no collision is detected.

4. The process as claimed in one of claims 1 to 3, characterized in that the change of channel request comprises an identifier of the first network.

5. The process as claimed in one of claims 1 to 4, characterized in that the change of channel request comprises an identifier of the apparatus.

6. The process as claimed in one of claims 1 to 5, characterized in that the request comprises a parameter indicating a transmission channel suggested to the first network.

7. The process as claimed in one of claims 1 to 6, characterized in that the request comprises a parameter indicating the number of times that this request has already been sent to the first network.

8. The process as claimed in one of claims 1 to 7, characterized in that before association the apparatus knows the identity of the central controller

of the first network and in that the frames transmitted on this first network comprise a field identifying this central controller.

9. The process as claimed in claim 8, characterized in that the determination of collision is carried out by detecting the fact that the apparatus cannot decode at least certain frames or parts of frames transmitted on the first network.

Abstract

The subject of the invention is a process for associating an apparatus (MT5) to a first communication network (N1), the transmissions in the first network being performed on a first channel.

The process comprises :

- detection by said apparatus (MT5) of the first transmission channel ;

- determination of collision on said channel between signals originating from the first network (N1) and from a second network (N2) ;

- in case of collision, transmission of a change of channel request to the first network.

The invention applies in particular within the framework of local networks such as HIPERLAN 2.
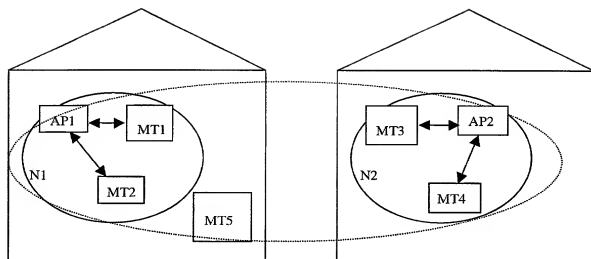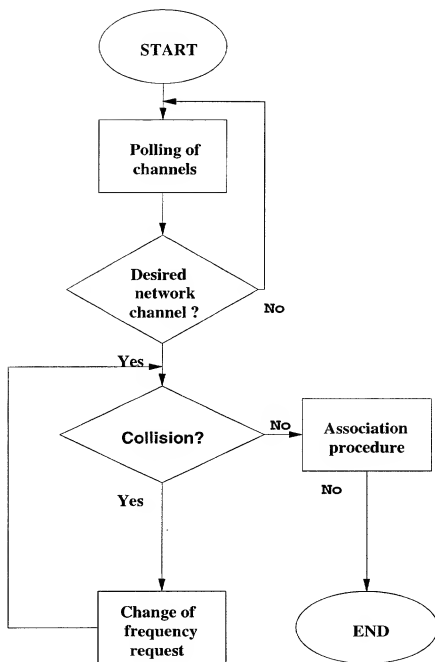
Figure 2.

Fig. 1

Fig. 2

DECLARATION FOR UNITED STATES PATENT APPLICATION,
POWER OF ATTORNEY, DESIGNATION OF CORRESPONDENCE ADDRESS

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name, and that I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

Process for associating an apparatus to a communication network

the specification of which
(CHECK ONE)   ( )   is attached hereto.
                 (XX)   was filed on September 28, 2000, Application Serial. No.PCT/FR00/02694
                          and was amended on .

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 CFR 1.56(a).

I hereby claim foreign priority benefits under 35 USC 119 of any foreign application(s) for patent, utility model, design or inventor's certificate having a filing date before that of the application(s) on which priority is claimed:

	Prior Foreign Application(s)		Priority Claimed	
Number	Country	Date Filed	Yes	No
9912051	FR	September 28, 1999	xx	

I hereby claim the benefit under 35 USC 120 of any US Application(s) listed below, and, insofar as the subject matter of each of the claims of this Application is not disclosed in the prior US application in the manner provided by the first paragraph of 35 USC 112, I acknowledge the duty to disclose information which is material to the examination of this application in accordance with 37 CFR 1.56(a).

Serial No.:   Filed:

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under of 18 USC 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: Joseph S. Tripoli (Reg. No. 26,040), Dennis H. Irlbeck (Reg. No. 26,372), Eric Herrmann (Reg. No. 29,169) and Joseph J. Laks (Reg. No. 27,914).Telephone: (609) 734-9813.

Address all correspondence to Joseph S. Tripoli, Patent Operations - Thomson multimedia Licensing, Inc. - CN 5312 - Princeton, New Jersey 08543-0028.

Signature: _____   Date: 27 day of February ,2002.
Sole or First Joint Inventor: Patrick Lopez
Citizenship: FR
Residence and Post Office Address: 6 rue Saint Mauron
                                          F-35450 Livré s/ Changeon
                                          France